

Application Score Sheet

Proposed Project: Gulf County School District, CAPE Unmanned Aircraft Systems Certification (#153)

Proposed Project/Program County: Gulf

Board of County Commission Support: TBD

Total Projected Project Cost: \$1,402,000

Match Provided: \$652,000

Triumph Funds Requested: \$750,000.00 (53.5%)

Triumph Funds Recommended by Staff: \$750,000.00

Score: A

Triumph Board Approval: Yes/No

Triumph Funds Approved by Board:

Date:

Economic Impact Analysis and Score

The Gulf County School District (GCSD) Proposal describes academic programs that will result in industry certifications in subject areas pertaining to unmanned aircraft systems (UAS). The Triumph request of \$750,000 represents 53.5 percent of total project cost over a 5-year period. GCSD will provide \$652,000 in instructor salaries and benefits as matching funds.

Programs would initially be implemented at Port St. Joe High School (PSJHS) with instruction to prepare students for the FAA ground school examination for the Private Pilot rating. This rating is required to then complete the examination to achieve a Remote Pilot license. The program is intended to prepare students to work in the growing UAS occupations of Pilot, Operations Technician, and Line-of-Sight Observer. The program will be extended and adapted to Wewahitchka High School (WHS) to support agricultural applications in agriscience areas of study. GCSD will have a fully implemented program at the end of the third year of implementation, when it would become self-sustaining due to student FTE enrollment.

Enrollment in the first year of the program will be 50 students. The first cohort of 50 students will complete 155 hours of course work and obtain Small UAS Safety Certification by May 2020. An additional 50 students per year will be certified in the remaining four years of the program (total of 200 over 5 years). The first cohort of 25 agriscience students will obtain certification in Agricultural Use of UAS technology in May 2019, with a similar number in each of the following 4 years (total of 125 over 5 years). The first cohort of students completing the Visual Line of Sight Operator (VOS) will complete curriculum and certification exam in May 2021 with an additional 50 per year in the remaining three years of the program (total of 200). The cost to Triumph per certification is thus approximately \$1,430.

Although the student population of GCSD is small, UAS is a high demand and growing industry sector that is well-matched to the needs of the local economy, particularly to agricultural activities in the northern part of the County. Further, the cost to Triumph per certificate obtained is relatively modest, and the program is projected to be self-sustaining due to enrollment over time.

For these reasons, staff rate this program “A” in terms of economic impact.

Project Summary (based on information provided by the applicant)

Gulf County School District requests 750,000.00 of Triumph funds to implement Florida Career and Professional Education (CAPE) Unmanned Aircraft Systems (UAS) certification programs at both Gulf County high schools. Drones can be used to gather weather data, collect intelligence information, inspect architectural structures, study traffic patterns and dozens of other tasks. Florida is among the top ten states predicted to create jobs and revenue as production and use of drones continues. This translates to almost 50,000 jobs for the state with the Northwest Florida region expected to see 40% (approximately 20,000) of that total.

Giving students the opportunity to obtain CAPE Small UAS Safety Certification and certification as a Visual Line of Sight System Operator (VOS) provides them an industry certification demonstrating expertise in the safe and professional application of remotely piloted aircraft making them highly qualified for careers in the burgeoning industry of unmanned aircraft systems. Electro-mechanical technicians maintain and operate drones, as well as other types of mechanical aircraft.

In the 1970s, personal computers emerged as cutting edge and transformational. No one truly understood at the time the impact they would have on the business world, education, military, and society in general. However, they have become an integral part of daily life.

This is where unmanned aircraft systems are today. Unmanned systems, more commonly referred to as drones, are beginning to be used in a number of ways. The agriculture industry uses them to detect specific acreage in need of irrigation rather than water crops unnecessarily. The commercial and charter fishing industry uses drones to locate schools of fish. Search and rescue teams use them to search rough or remote terrain that would otherwise be difficult to search when seconds count. The possibilities are endless and rapid and consistent growth is inevitable.

This program would initially be implemented at Port St. Joe High School (PSJHS) and is designed to prepare students for employment and advanced educational training in the emerging aviation industry of unmanned aircraft systems. Instruction is designed to prepare students for Federal Aviation Administration (FAA) ground school examination for Private Pilot rating. Federal Aviation Regulation (FAR) Part 61 identifies minimum requirements for completing this examination, which is required to complete the FAR Part 107 examination to achieve a Remote Pilot License. This program prepares students for employment in the field of UAS as a Pilot, Operations Technician, and a Line-of-Sight Observer.

This program places emphasis on broad, transferable skills and stresses the understanding of all aspects of the UAS growing industry. It incorporates elements of the industry such as planning, management, finance, technical and production skills, underlying principles of technology, labor issues, community concerns, as well as health, safety and environmental issues.

The CAPE UAS program offers a sequence of courses that provides coherent and rigorous content aligned with challenging academic standards and relevant technical knowledge and skills needed to prepare for further education and careers in the Transportation, Distribution and Logistics career cluster; provides technical skill proficiency, and includes competency-based applied learning that contributes to academic knowledge, higher-order reasoning and problem-solving skills, work attitudes, general employability skills, technical skills, and occupation-specific skills.

In addition to the initial implementation at PSJHS during the first year, the project will be adapted for Wewahitchka High School to support agriculture applications (soil and field analysis, livestock and crop monitoring, health assessment, etc.) as the area of agriscience pathways are expanded for students. Students enrolled in agriscience courses would be able to obtain additional CAPE certification in Agricultural Use of UAS Technology. The purpose of this course is to provide students who have completed or are currently completing an occupational completion point (OCP) in an agricultural program, a capstone experience in UAS Technology for agriculture. It is designed to enhance competencies in the areas of agricultural science and UAS technology. Laboratory-based activities are an integral part of the course and include the safe use and application of appropriate technology, scientific testing and observation equipment.

This grant would allow Gulf District Schools to immediately implement a drone certification program and, by the end of the third year, have a fully implemented, viable program working toward complete sustainability at both high schools. In the initial phases, both area elementary schools will incorporate coding into the curricula. Doing so will not only spark interest but open a new domain of knowledge that will be important to the future of every student.

Funding would be used to hire a Drone Aviation Technician to train teachers and oversee the project, obtain drones and related peripheral equipment, provide safe and secure storage, purchase curriculum, and purchase certification exams. Gulf District School's contributions to this project total approximately \$652,000 over the life of the proposal in the form of instructor salaries and benefits.

Training will be delivered by certified instructors in a classroom setting using both an online curriculum and traditional textbooks. There is a large hands-on field component as well.

Anticipated enrollment for the first year will be 50 students. Enrollment for subsequent years will be 75 students and includes those students enrolled in agriscience courses. The first cohort of 50 students are expected to complete 155 hours of course work and obtain CAPE Small UAS Safety Certification by May 2020. The first cohort of 25 agriscience students will obtain CAPE certification in Agricultural Use of UAS Technology in May 2019.

While this proposal permits the initial implementation of the unmanned systems program and provides funding for the first five years, the program will become self-sustaining and remain viable for an extended period.

Several factors contribute to the sustainability of the proposed project whose implementation is in direct response to identified needs within the community. Gulf District School has a proven infrastructure and the capacity to sustain the proposed plan. The maintenance, staffing, and utilities will be assumed by the district. The financial management procedures will be consistent with the policies and procedures of the district and in compliance with Florida Department of Education (FDOE) regulations. FDOE student enrollment funding ensures long-term sustainability. Schools are funded through the Florida Education Finance Program (FEFP) and external sources such as grants and entitlements. However, there will be continued efforts to obtain additional funding through business partnerships and grant opportunities in an effort to enhance the program.

Efforts to improve the economy of the area are reliant upon the workforce available in that area. The proposed career and technical education program can be instrumental in creating that workforce. Economic development leaders encourage new companies to bring employment opportunities to the communities. Offering industry certifications at the high school level will result in graduates prepared to become a viable part of the area's workforce.

Funding and Budget (as provided by the applicant)

5. Please provide a Project/Program Budget. Include all applicable costs and other funding sources available to support the proposal.

A. Project Costs:

Instructor salaries/benefits (contributed by Gulf District Schools)	\$652,000
Salary/Benefits for Drone Aviation Technician for 5 years	\$350,000
Professional development/Stipends for trainings beyond regular work day	\$100,000
Drones, computers, and related peripheral equipment	\$150,000
Online curricula, texts, assessment fees	\$75,000
Storage buildings	\$25,000
Supplies and materials	\$20,000
Organization fees & dues	\$30,000
Total Project Costs:	\$1,402,000

B. Other Project Funding Sources:

Gulf District School's contributions to this project total approximately \$652,000 over the life of the proposal in the form of instructor salaries and benefits.

Total Amount Requested: \$750,000

Letters of Support

